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A schematic diagram of a continuous casting apparatus. It shows a horizontal main pipe with a motor  $T_m$  at the left end. A tundish (3) is connected to the main pipe at its left side. The tundish has a central downspout (32) with three downward arrows indicating flow. Below the tundish is a control unit (33, 34) connected to the downspout. On the right side of the main pipe, there is a set of rollers (42, 43, 44) and a motor  $T_s$ . A vertical arrow (42a) indicates movement between the rollers. The main pipe ends with a horizontal arrow pointing right, labeled 51. Various other components are labeled with numbers: 11, 21, 22, 23a, 24a, 25a, 25b, 31a, 41, and 51.

**(57) Abstract:** A method of producing a spread multi-filament bundle and an apparatus used in the same are provided, in which an arbitrary number of multi-filament bundles of higher strength are simultaneously spread with high speed and facility and a high-quality spread multi-filament bundle or sheet with the component monofilaments thereof aligned in parallel widthwise and uniformly distributed in density is produced with high efficiency. Such mechanism is adopted herein as the respective multi-filament bundles fed from a yarn supplier or a creel being subjected to the fluctuation of the tensile force applied thereto alternatively between tension and relaxation and the respective bundles as subjected to such fluctuation being passed in succession through a fluid flowing spreader comprising a plurality of fluid flowing portions disposed in succession along the moving course of the respective bundles to be subjected to fluidal resistance so as to bend towards the direction to which a fluid flows and the fluid flowing through any adjacent component monofilaments of the respective bundles whose bonding is slackened due to such fluidal resistance so as to widely spread the respective bundles by the mutual action of such change of the tensile force and such fluidal resistance applied thereto.



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